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Ba nuclear resonance in YBa2Cu2Oy

Yakubowskii A., Egorov A., Lütgemeier H.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The first observations of NMR and NQR of both isotopes135Ba and134Ba in isotopically enriched samples of YBa2Cu3Oy with oxygen concentrations y=6.0, 6.2, and 7.0 are described. The pure NQR frequencies and asymmetry parameter are in good agreement with theoretical predictions. The temperature dependence of the NQR frequency of Ba for y=7 is qualitatively similar to that for Cu(2) but much stronger. The temperature dependence of the longitudinal and transverse relaxation times opens new questions. © 1992 Springer.

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